

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of fabricating a semiconductor device ~~comprising having~~ a semiconductor substrate including semiconductor elements, and multi-layered wiring regions, ~~wherein and~~ at least one layer of the wiring regions above ~~the-a~~ first wiring region on the semiconductor substrate is fabricated using a process, comprising: ~~the following steps (a) to (f):~~

____ (a) ~~a step of forming~~ forming a via-hole in an interlayer dielectric formed above the first wiring region on a semiconductor substrate;

____ (b) ~~a degassing step for removing gaseous components included within~~ said interlayer dielectric by a heat treatment under reduced pressure and at ~~the-a~~ substrate temperature of 300°C to 550°C;

____ (c) ~~a step of forming~~ forming a wetting layer on ~~the-a~~ surface of said interlayer dielectric;

____ (d) ~~a step of cooling~~ cooling the substrate to a temperature of no more than 100°C;

____ (e) ~~a step of forming~~ forming a first aluminum layer comprising one of aluminum and an alloy in which aluminum is the main component on said wetting layer at a temperature of a first degree C;

____ (f) ~~a step of forming~~ forming a second aluminum layer comprising one of aluminum and an alloy in which aluminum is the main component on said first aluminum layer at a temperature of a second degree C; and ~~wherein~~ the first degree C is lower than the second degree C.

2. (Currently Amended) A method of fabricating a semiconductor device ~~comprising having~~ a semiconductor substrate including semiconductor ~~elements;elements,~~

and multi-layered wiring regions, ~~wherein and~~ at least one layer of ~~the-a~~ wiring regions above the first wiring region on the semiconductor substrate is fabricated using a process, comprising: ~~the following steps (a) to (f):~~

- ____ (a) ~~a step of forming~~ an interlayer dielectric formed above the first wiring region on a semiconductor substrate;
- ____ (b) ~~a degassing step for removing gaseous components included within~~ said interlayer dielectric by a heat treatment under reduced pressure and at ~~the-a~~ substrate temperature of 300°C to 550°C;
- ____ (c) ~~a step of forming~~ a wetting layer on ~~the-a~~ surface of said interlayer dielectric;
- ____ (d) ~~a step of cooling~~ the substrate to a temperature of no more than 100°C;
- ____ (e) ~~a step of forming~~ a first aluminum layer comprising one of aluminum and an alloy in which aluminum is the main component on said wetting layer at a temperature of a first degree C; and
- ____ (f) ~~a step of forming~~ a second aluminum layer comprising one of aluminum and an alloy in which aluminum is the main component on said first aluminum layer at a temperature of a second degree C; and ~~wherein~~ the first degree C is lower than the second degree C.

3. (Original) The method of fabricating a semiconductor device according to claim 1, wherein the first degree C is no more than 200°C and the second degree C is at least 300°C.

4. (Original) The method of fabricating a semiconductor device according to claim 2, wherein the first degree C is no more than 200°C and the second degree C is at least 300°C.

5. (Currently Amended) The method of fabricating a semiconductor device according to claim 3, wherein ~~the formation of forming~~ the aluminum layers in said steps (e) and (f) is provided by a sputtering method.

6. (Currently Amended) The method of fabricating a semiconductor device according to claim 3, wherein ~~the formation of forming~~ the aluminum layers in said steps (e) and (f) is provided in the same chamber and in a consecutive manner.

7. (Currently Amended) The method of fabricating a semiconductor device according to claim 3, wherein ~~said steps (d), (e), and (f)~~ ~~cooling the substrate, forming the first aluminum layer, and forming the second aluminum layer~~, are performed consecutively in the same equipment having a plurality of chambers each maintained under a reduced pressure.

8. (Currently Amended) The method of fabricating a semiconductor device according to claim 3, wherein ~~the formation of forming~~ the aluminum layers in said steps (e) and (f) is provided by controlling the temperature of the stage on which said semiconductor substrate is to be mounted.

9. (New) The method of fabricating a semiconductor device according to claim 1, further comprising:

prior to cooling the substrate, performing heat treatment to the substrate.

10. (New) The method of fabricating a semiconductor device according to claim 2, further comprising:

prior to cooling the substrate, performing heat treatment to the substrate.

11. (New) The method of fabricating a semiconductor device according to claim 1, wherein the via-hole has a bottom, side walls, and top portions; and

wherein the wetting layer has a thickness at the bottom of the via-hole greater than a thickness at the side walls and top portions of the via-hole.